

NANOCOMPOSITE SURGICAL MATERIALS AND METHOD
OF PRODUCING THEM

ABSTRACT OF THE DISCLOSURE

Nanocomposite surgical materials, such as cements, having very fine
5 heterogenous structure are formed by incorporating into a polymeric matrix a well
dispersed solid filler having an average mass diameter ranging from about 750
nanometers to about 1 nanometer. The average ligament thickness of the surgical
composite cements ranges from about 750 nanometers to about 1 nanometer. Methods
and apparatus for avoiding air contact during the preparation and transfer of a cement to
10 an in vivo site are described.